Reply under 37 CFR 1.116 - Expedited Procedure - Technology Center 3737

Art Unit: 3737

Application No. 09/856,683

Docket No. 0101-P01789US1 Examiner: Mantis Mercader, E.

REMARKS

Claims 1-110 are pending in the application, of which claims 13-15 stand finally rejected. Applicant notes with appreciation the indication that claims 1-12 and 16-110 are allowable.

REJECTIONS UNDER 35 U.S.C. 101

Claim 13 stands rejected under 35 U.S.C. 101 "as claiming the same invention as that of claim 1 of prior US Patent No. 5,920,319." The Official Action further states that "the term 'same invention,' in this context, means an invention drawn to <u>identical</u> subject matter." (Emphasis Added.)

The Examiner states that "[t]hese claims are identical in the scope of the claimed invention." Applicants respectfully disagree for at least the reason that the claims are not identical. The chart below indicates in bold, italics some differences between claims 1 and 13, that show the claims are not identical in scope as alleged in the Office Action.

- 13. A computer-implemented method for interactively displaying a three-dimensional rendering of a structure having a lumen and indicating regions having *abnormal* structure comprising the steps of:
- 1. A computer-implemented method for interactively displaying a three-dimensional rendering of a structure having a lumen and indicating regions of *abnormal wall thickness* comprising the steps of:
- b. segmenting a region of interest from the volume of data based on a selected value of the physical property representing the region of interest;
- b. creating an isosurface of a selected region of interest from the three-dimensional volume of data based on a selected value of the physical property representing the selected region of interest;
- c. generating a wireframe model of the segmented region of interest, the wireframe model comprising a plurality of vertices, each vertex having a coordinate position;
- c. generating a wireframe model of the isosurface, the wireframe model comprising a plurality of vertices;
- d. grouping the vertices of the wireframe model into *regions* having a characteristic *indicating abnormal structure*;
- d. grouping the vertices of the wireframe model into *populations* having a characteristic *indicating abnormal wall structure*; and

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e. analyzing the regions having abnormal structure to identify regions having a high degree of abnormality; and

f. rendering the wireframe model in an interactive three-dimensional display to indicate *the regions having abnormal* structure.

e. rendering the wireframe model in an interactive three-dimensional display to indicate *the populations*.

For example, step (b) of claim 13 recites "segmenting a region of interest...", and step (b) of claim 1 recites "creating an isosurface of a selected region of interest...". "Segmenting a region of interest" is not synonymous in scope in all respects with "creating an isosurface". In addition, claim 1 does not recite a step of "e. analyzing the regions having abnormal structure to identify regions having a high degree of abnormality," as recited in claim 13. Still further, claim 13 relates to "indicating regions having abnormal structure", whereas claim 1 relates to "indicating regions of abnormal wall thickness", as recited in the respective preambles and steps "d" of the claims. "Abnormal structure" is not synonymous in scope in all respects with "abnormal wall thickness". There are structures other that the thickness of a wall that can be abnormal.

Thus, for all of the above-reasons, <u>claim 13 of the instant application is not identical in scope to claim 1 of US 5,920,319</u>, and a rejection under 35 U.S.C. 101, which requires that the "invention be drawn to identical subject matter", as quoted by the Examiner, cannot stand. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claim 13, as well as claims 14 and 15 which depend therefrom.

PROVISIONAL OBVIOUSNESS-TYPE DOUBLE PATENTING

Claim 13 stands provisionally rejected under the judicially created doctrine of obviousness-type double patenting in view of copending application number 10/109,547. In view of the comments made above, Applicants believe the application is now in condition for

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allowance. Therefore, Applicants respectfully submit that the provisional double patenting rejection should be withdrawn and the case allowed to issue.

In view of the foregoing amendments and remarks, it is believed that the claims in this application are now in condition for allowance. Early and favorable reconsideration is respectfully requested. The Examiner is invited to telephone the undersigned in the event that a telephone interview will advance prosecution of this application.

Respectfully submitted,

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